

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 08:02:42 ON 08 JAN 2004

=> file reg

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 08:02:49 ON 08 JAN 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 6 JAN 2004 HIGHEST RN 634878-43-6

DICTIONARY FILE UPDATES: 6 JAN 2004 HIGHEST RN 634878-43-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s ethyl acetate/cn

L1 1 ETHYL ACETATE/CN

=> s ethanol/cn

L2 1 ETHANOL/CN

=> s acetaldehyde/cn

L3 1 ACETALDEHYDE/CN

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
13.71	13.92

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 08:03:06 ON 08 JAN 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE COVERS 1907 - 8 Jan 2004 VOL 140 ISS 2

FILE LAST UPDATED: 6 Jan 2004 (20040106/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l1 and l2

23600 L1

164648 L2

L4 7816 L1 AND L2

=> s l4 and (dehydrogenation or l3)

44522 DEHYDROGENATION

454 DEHYDROGENATIONS

44618 DEHYDROGENATION

(DEHYDROGENATION OR DEHYDROGENATIONS)

31285 L3

L5 1589 L4 AND (DEHYDROGENATION OR L3)

=> s l5 and hydrogenatio?

162282 HYDROGENATIO?

L6 51 L5 AND HYDROGENATIO?

=> s l6 and distil?

112135 DISTIL?

156598 DISTD

1 DISTDS

156598 DISTD

(DISTD OR DISTDS)

23895 DISTG

167221 DISTN

1711 DISTNS

167937 DISTN

(DISTN OR DISTNS)

355466 DISTIL?

(DISTIL? OR DISTD OR DISTG OR DISTN)

L7 5 L6 AND DISTIL?

=> d 1-5

L7 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:592386 CAPLUS

DN 139:102723

TI Method for preparing ethyl acetate from synthetic gas via ethanol and acetic acid

IN Lou, Hongyuan; Wu, Qiahua; Ding, Yunjie; Lin, Peici

PA Dalian Inst. of Chemicophysics, Chinese Academy of Sciences, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1351988	A	20020605	CN 2000-123253	20001115
PRAI	CN 2000-123253		20001115		
OS	CASREACT 139:102723				

L7 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:240719 CAPLUS

DN 132:252790

TI **Hydrogenation** and **distillation** process for the purification of alkyl alkanoates

IN Colley, Stephen William; Harris, Norman; Rathmell, Colin

PA Kvaerner Process Technology Limited, UK  
SO Eur. Pat. Appl., 22 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 992484	A1	20000412	EP 1998-308013	19981001
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2345983	AA	20000413	CA 1999-2345983	19990929
	WO 2000020374	A1	20000413	WO 1999-GB3228	19990929
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9961071	A1	20000426	AU 1999-61071	19990929
	EP 1117630	A1	20010725	EP 1999-947694	19990929
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9914248	A	20011204	BR 1999-14248	19990929
	ZA 200102081	A	20020813	ZA 2001-2081	19990929
	JP 2002526519	T2	20020820	JP 2000-574492	19990929
	GB 2357503	B2	20031112	GB 2001-6309	19990929
	GB 2357503	A1	20010627		
	US 6632330	B1	20031014	US 2001-806112	20010605
PRAI	EP 1998-308013	A	19981001		
	WO 1999-GB3228	W	19990929		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:240716 CAPLUS

DN 132:252789

TI **Distillation** process for the recovery of pure ethyl acetate from mixtures of ethyl acetate, ethanol and water

IN Colley, Stephen William; Fawcett, Christopher Richard; Sharif, Mohammad; Tuck, Michael William Marshall; Watson, David John; Wood, Michael Anthony

PA Kvaerner Process Technology Limited, UK

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 992482	A1	20000412	EP 1998-308010	19981001
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2345992	AA	20000413	CA 1999-2345992	19990929
	WO 2000020373	A1	20000413	WO 1999-GB3226	19990929
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,				

DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9961069	A1	20000426	AU 1999-61069	19990929
EP 1117629	A1	20010725	EP 1999-947692	19990929

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO

ZA 200102080	A	20010913	ZA 2001-2080	19990929
JP 2002526518	T2	20020820	JP 2000-574491	19990929

PRAI EP 1998-308010 A 19981001  
WO 1999-GB3226 W 19990929

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2000:227366 CAPLUS  
DN 132:238697  
TI Process for the manufacture of ethyl acetate from ethanol  
IN Colley, Stephen William; Fawcett, Christopher Richard; Rathmell, Colin;  
Tuck, Michael William Marshall  
PA Kvaerner Process Technology Limited, UK  
SO Eur. Pat. Appl., 22 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 990638	A1	20000405	EP 1998-308011	19981001
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	TW 519536	B	20030201	TW 1999-88116390	19990923
	CA 2345990	AA	20000413	CA 1999-2345990	19990929
	WO 2000020375	A1	20000413	WO 1999-GB3230	19990929
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9961073	A1	20000426	AU 1999-61073	19990929
	EP 1117631	A1	20010725	EP 1999-947696	19990929
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	ZA 200102079	A	20010913	ZA 2001-2079	19990929
	JP 2002526520	T2	20020820	JP 2000-574493	19990929
PRAI	EP 1998-308011	A	19981001		
	WO 1999-GB3230	W	19990929		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1985:438941 CAPLUS  
DN 103:38941  
TI Direct synthesis of acetic acid from synthesis gas  
AU Dettmeier, Udo; Leupold, Ernst Ingo; Poell, Heinrich; Schmidt, Hans  
Joachim; Schuetz, Joachim  
CS Hoechst A.-G., Frankfurt/Main, D-6230/80, Fed. Rep. Ger.  
SO Erdoel & Kohle, Erdgas, Petrochemie (1985), 38(2), 59-62  
CODEN: EKEPAB; ISSN: 0014-0058  
DT Journal  
LA German

=> d abs 5

L7 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN  
AB A gas-phase process is described in which supported Rh catalysts are used to prep. AcOH [64-19-7], AcH [75-07-0], EtOH [64-17-5], and AcOEt [141-78-6] from synthesis gas with selectivities of .ltoreq.80%. AcOH is obtained as the main product after an oxidative work-up followed by fractional **distn**. Prodn. costs are estd.

=> s l5 and distil?

112135 DISTIL?  
156598 DISTD  
1 DISTDS  
156598 DISTD  
(DISTD OR DISTDS)  
23895 DISTG  
167221 DISTN  
1711 DISTNS  
167937 DISTN  
(DISTN OR DISTNS)  
355466 DISTIL?  
(DISTIL? OR DISTD OR DISTG OR DISTN)

L8 193 L5 AND DISTIL?

=> s l8 and water

2093451 WATER  
235204 WATERS  
2145025 WATER  
(WATER OR WATERS)

L9 27 L8 AND WATER

=> s l9 and cataly?

1167915 CATALY?

L10 7 L9 AND CATALY?

=> d 1-7

L10 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:755254 CAPLUS  
DN 137:281024  
TI Process for production of .alpha.-methylene lactones and .alpha.-substituted hydrocarbylidene lactones  
IN Puts, Rutger D.; Brandenburg, Charles; Tarburton, Kenneth R.  
PA USA  
SO U.S. Pat. Appl. Publ., 15 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 2002143195	A1	20021003	US 2001-29566	20011221
	US 6531616	B2	20030311		
PRAI	US 2000-257957P	P	20001222		
OS	MARPAT 137:281024				

L10 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2000:755351 CAPLUS  
DN 133:281540  
TI Production method of ethyl acetate by condensation of acetaldehyde  
IN Wang, Decheng; Han, Zuhong

PA Branch of Petrochemistry Inst., Heilongjiang Prov. Academy of Sciences,  
Peop. Rep. China  
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp.  
CODEN: CNXXEV  
DT Patent  
LA Chinese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1245794	A	20000301	CN 1998-116923	19980821
PRAI	CN 1998-116923		19980821		
OS	CASREACT 133:281540				

L10 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2000:240719 CAPLUS  
DN 132:252790  
TI Hydrogenation and **distillation** process for the purification of  
alkyl alkanoates  
IN Colley, Stephen William; Harris, Norman; Rathmell, Colin  
PA Kvaerner Process Technology Limited, UK  
SO Eur. Pat. Appl., 22 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 992484	A1	20000412	EP 1998-308013	19981001
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2345983	AA	20000413	CA 1999-2345983	19990929
	WO 2000020374	A1	20000413	WO 1999-GB3228	19990929
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9961071	A1	20000426	AU 1999-61071	19990929
	EP 1117630	A1	20010725	EP 1999-947694	19990929
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9914248	A	20011204	BR 1999-14248	19990929
	ZA 200102081	A	20020813	ZA 2001-2081	19990929
	JP 2002526519	T2	20020820	JP 2000-574492	19990929
	GB 2357503	B2	20031112	GB 2001-6309	19990929
	GB 2357503	A1	20010627		
	US 6632330	B1	20031014	US 2001-806112	20010605
PRAI	EP 1998-308013	A	19981001		
	WO 1999-GB3228	W	19990929		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2000:240716 CAPLUS  
DN 132:252789  
TI **Distillation** process for the recovery of pure ethyl acetate from  
mixtures of ethyl acetate, ethanol and **water**  
IN Colley, Stephen William; Fawcett, Christopher Richard; Sharif, Mohammad;  
Tuck, Michael William Marshall; Watson, David John; Wood, Michael Anthony  
PA Kvaerner Process Technology Limited, UK

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 992482	A1	20000412	EP 1998-308010	19981001
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2345992	AA	20000413	CA 1999-2345992	19990929
	WO 2000020373	A1	20000413	WO 1999-GB3226	19990929
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9961069	A1	20000426	AU 1999-61069	19990929
	EP 1117629	A1	20010725	EP 1999-947692	19990929
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	ZA 200102080	A	20010913	ZA 2001-2080	19990929
	JP 2002526518	T2	20020820	JP 2000-574491	19990929
PRAI	EP 1998-308010	A	19981001		
	WO 1999-GB3226	W	19990929		

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:227366 CAPLUS

DN 132:238697

TI Process for the manufacture of ethyl acetate from ethanol

IN Colley, Stephen William; Fawcett, Christopher Richard; Rathmell, Colin; Tuck, Michael William Marshall

PA Kvaerner Process Technology Limited, UK

SO Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 990638	A1	20000405	EP 1998-308011	19981001
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	TW 519536	B	20030201	TW 1999-88116390	19990923
	CA 2345990	AA	20000413	CA 1999-2345990	19990929
	WO 2000020375	A1	20000413	WO 1999-GB3230	19990929
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9961073	A1	20000426	AU 1999-61073	19990929
	EP 1117631	A1	20010725	EP 1999-947696	19990929
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

IE, SI, LT, LV, FI, RO  
 ZA 200102079 A 20010913 ZA 2001-2079 19990929  
 JP 2002526520 T2 20020820 JP 2000-574493 19990929  
 PRAI EP 1998-308011 A 19981001  
 WO 1999-GB3230 W 19990929  
 RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1999:690821 CAPLUS  
 DN 131:288016  
 TI Process for the removal of acetaldehyde impurities from ethyl acetate  
 manufactured by the addition reaction of acetic acid with ethylene with  
 the esterification of byproduct ethanol with acetic acid  
 IN Cunnington, Malcolm John; Pacynko, Witold Franciszek; Khan, Mohammed  
 Hussain  
 PA Bp Chemicals Ltd., UK  
 SO Eur. Pat. Appl., 16 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 952141	A1	19991027	EP 1999-302906	19990414
	EP 952141	B1	20020605		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	ES 2178351	T3	20021216	ES 1999-302906	19990414
	SG 78345	A1	20010220	SG 1999-1691	19990420
	ZA 9902876	A	20001022	ZA 1999-2876	19990422
	BR 9915373	A	20010814	BR 1999-15373	19990422
	EG 22451	A	20030226	EG 1999-454	19990422
	CA 2270136	AA	19991025	CA 1999-2270136	19990423
	JP 11335323	A2	19991207	JP 1999-117140	19990423
	MX 9903809	A	20001031	MX 1999-3809	19990423
	CN 1235957	A	19991124	CN 1999-107405	19990425
	US 6232491	B1	20010515	US 1999-298999	19990426
	TW 512144	B	20021201	TW 1999-88107708	19990512
PRAI	GB 1998-8847	A	19980425		
	GB 1999-192	A	19990107		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1940:35942 CAPLUS  
 DN 34:35942  
 OREF 34:5414a-b  
 TI Separation of ethyl acetate from the products of **catalytic  
 dehydrogenation** of ethyl alcohol  
 AU Borisova, E. A.; Veltistova, M. V.; Lel'chuk, S. L.  
 SO Promyshlennost Organicheskoi Khimii (1940), 7, 98-102  
 CODEN: PROKAC; ISSN: 0370-1557  
 DT Journal  
 LA Unavailable

=> d abs 7

L10 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB A general discussion of known procedures, involving the azeotropic  
**distn.** of condensate and removal of **water** from the EtOAc  
 with K<sub>2</sub>CO<sub>3</sub> and AcH with NaHSO<sub>3</sub> and NH<sub>2</sub>OH.HCl.



=> logoff

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
29.65	43.57

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-1.39	-1.39

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